

**State Intellectual Property Office of People's Republic of China**

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Haidian District, Beijing, P. R. China, Postal Code: 100083

Applicant	Hitachi Medical Corporation	Issuing Date: April 4, 2008
Patent Agent	Changhui CHEN	
Application No.	200380110680.2	
Title of Invention	Thrombus Detecting Apparatus, Thrombus Treating Apparatus and Methods therefor	

**FIRST OFFICE ACTION**

(For PCT Application Entering the National Phase)

1. ☒ The applicant has filed a request for substantive examination on \_\_\_\_\_ (day/month/year). The examiner has carried out substantive examination on the above mentioned patent application for invention in accordance with the provisions of Article 35(1) of the Chinese Patent Law.
- ☐ The Patent Office has decided to carry out a substantive examination on the above mentioned patent application for invention in accordance with the provisions of Article 35(2) of the Chinese Patent Law.

2. ☐ The applicant claimed:

The filing date \_\_\_\_\_ in the \_\_\_\_\_ Patent Office as the priority date,  
The filing date \_\_\_\_\_ in the \_\_\_\_\_ Patent Office as the priority date, and  
The filing date \_\_\_\_\_ in the \_\_\_\_\_ Patent Office as the priority date.

3. ☐ The following amended document(s) submitted by the applicant is (are) unacceptable, as the document(s) is(are) not in conformity with the provisions of Article 33 of the Chinese Patent Law:

- ☐ The Chinese translation of the annexes of the International Preliminary Examination Report,  
☐ The Chinese translation of the amendment submitted under Article 19 of the Patent Cooperation Treaty,  
☐ The Chinese translation of the amendment submitted under Article 28 or 41 of the Patent Cooperation Treaty,  
☐ The amendment submitted in accordance with Rule 51 of the Implementing Regulations of the Chinese Patent Law.

The detailed reasons for the amendments being unacceptable is described in the text of this office action.

4. ☒ The examination was carried out based on the Chinese translation of the international application as originally filed.

- ☐ The examination was carried out on the basis of the following application documents:

- ☐ The description

Pages \_\_\_\_\_, the Chinese translation of the international application as originally filed;

Pages \_\_\_\_\_, the Chinese translation of the annexes of the International Preliminary Examination Report;

Pages \_\_\_\_\_, the Chinese translation of the amendment submitted under Article 28 or 41 of the Patent Cooperation Treaty;

Pages \_\_\_\_\_, amendment submitted according to Rule 51 of the Implementing

## Regulations of the Chinese Patent Law.

☐ The claims

Nos. \_\_\_\_\_, the Chinese translation of the international application as originally filed;

Nos. \_\_\_\_\_, the Chinese translation of the amendment submitted under Article 19 of the Patent Cooperation Treaty.

Nos. \_\_\_\_\_, the Chinese translation of the annexes of the International Preliminary Examination Report;

Nos. \_\_\_\_\_, the Chinese translation of the amendment submitted under Article 28 or 41 of the Patent Cooperation Treaty;

Nos. \_\_\_\_\_, amendment submitted according to Rule 51 of the Implementing Regulations of the Chinese Patent Law.

☐ The drawings

Pages \_\_\_\_\_, the Chinese translation of the international application as originally filed;

Pages \_\_\_\_\_, the Chinese translation of the annexes of the International Preliminary Examination Report;

Pages \_\_\_\_\_, the Chinese translation of the amendment submitted under Article 28 or 41 of the Patent Cooperation Treaty;

Pages \_\_\_\_\_, amendment submitted according to Rule 51 of the Implementing Regulations of the Chinese Patent Law.

5. ☒ The following reference documents have been cited in this office action (their serial numbers will be referred to in the ensuing examination procedure):

Serial No.	Reference document( Number or Title)	Publication Date (or Filing date of interference patent applications)
1	JP 特开 2003-70787A	2003-03-11
2	JP 特开 2002-345787A	2002-12-03
3	US5307816A	1994-05-03
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6. The result of the examination is as follows:

☐ Description:☐ The subject matter of the application falls into the scope on which no patent right shall be granted as provided by Article 5 of the Chinese Patent Law.☐ The description is not in conformity with the provisions of Article 26(3) of the Chinese Patent Law.☐ The description is not in conformity with the provisions of Rule 18 or 19 of the Implementing Regulations of the Chinese Patent Law.☒ Claims:☒ Claims 3-13 fall into the scope within which no patent right shall be granted as provided by Article 25 of the Chinese Patent Law☒ Claims 1-2 do not possess novelty as provided by Article 22(2) of the Chinese Patent Law.☒ Claims 1-5 do not possess inventiveness as provided by Article 22(3) of the Chinese Patent Law.☐ Claim \_\_\_\_\_ does not possess practical applicability as provided by Article 22(4) of the Chinese Patent Law.☐ Claim \_\_\_\_\_ is not in conformity with the provisions of Article 26(4) of the Chinese Patent Law.

- ☐ Claim \_\_\_\_\_ is not in conformity with the provisions of Article 31(1) of the Chinese Patent Law.
- ☒ Claims 5, 6 are not in conformity with the provisions of Rule 20 of the Implementing Regulations of the Chinese Patent Law.
- ☐ Claim \_\_\_\_\_ is not in conformity with the provisions of Rule 21 of the Implementing Regulations of the Chinese Patent Law.
- ☐ Claim \_\_\_\_\_ is not in conformity with the provisions of Rule 23 of the Implementing Regulations of the Chinese Patent Law.
- ☐ Claim \_\_\_\_\_ is not in conformity with the provisions of Article 9 of the Chinese Patent Law.
- ☐ Claim \_\_\_\_\_ is not in conformity with the provisions of Rule 12(1) of the Implementing Regulations of the Chinese Patent Law.
- ☐

The detail analysis for above conclusive opinion is described in the text of this office action.

7. On the basis of the above conclusive opinion, the examiner holds that:

- ☐ The applicant should make amendments as required in the text of this office action.
- ☒ The applicant should provide reasons for that the above mentioned patent application can be granted the patent right, and make amendments to the specification which is not in conformity with the provisions as described in text of this office action; otherwise the patent right shall not be granted.
- ☐ The patent application does not possess any substantive patentable contents, if the applicant fails to provide reasons or the reasons provided are not sufficient, this application will be rejected.
- ☐

8. ☐ The applicant's attention is drawn to the following matters:

- (1) In accordance with the provisions of Article 37 of the Chinese Patent Law, the applicant shall submit a response within four months from the receipt of this office action. If the applicant fails to meet the time limit without any justified reason, the application shall be deemed to be withdrawn.
- (2) The amendment made by the applicant shall be in conformity with the provisions of Article 33 of the Chinese Patent Law. The amended documents shall be submitted in duplicate and in the format required by the relevant provisions of the Examination Guideline.
- (3) The applicant's response and/or amended documents shall be mailed or submitted to the Receiving Department of the Chinese Patent Office. Documents which are not mailed or submitted to the Receiving Department do not possess legal effect.
- (4) The applicant and/or his (its) agent shall not come to the Chinese Patent Office for interview with the examiner without an appointment.

9. The text of this office action consists of a total of 4 sheets, and is accompanied by the following annexes:

- ☒ A copy of cited reference documents consisting of 3 set(s) and 34 sheet(s).
- ☐

The \_\_\_\_\_ Examination Department

The Seal of the Examiner: Linxia LI

整理番号 01594  
発送番号 318441  
発送日 平成20年 6月 3日

## 拒絶理由通知書

特許出願の番号	特願2002-143014
起案日	平成20年 5月30日
特許庁審査官	松谷 洋平 3410 2000
特許出願人	株式会社日立メディコ 様
適用条文	第29条第2項

この出願は、次の理由によって拒絶をすべきものです。これについて意見がありましたら、この通知書の発送の日から60日以内に意見書を提出してください。

### 理 由

この出願の下記の請求項に係る発明は、その出願前に日本国内又は外国において、頒布された下記の刊行物に記載された発明又は電気通信回線を通じて公衆に利用可能となった発明に基いて、その出願前にその発明の属する技術の分野における通常の知識を有する者が容易に発明をすることができたものであるから、特許法第29条第2項の規定により特許を受けることができない。

### 記 (引用文献等については引用文献等一覧参照)

- ・請求項1-7
- ・引用文献1-9
- ・備考：  
(請求項1について)

引用文献2には、血管内を通過する血栓を超音波により監視するが記載されている。

また、引用文献7には、血管内を通過する血栓を検査光により監視するが記載されている。

引用文献2及び7に記載された発明は、共に血管内を通過する血栓を監視する装置に関するものであるので、必要に応じて両装置を組み合わせて用いて、血栓の検出を行うことに格別の困難性は存在せず、当業者なら適宜なし得る事項である。

なお、引用文献2には、「Some Doppler ultrasound systems also have the capability to detect and characterize emboli flowing in the bloodstream.」(第1欄第19-20行)、「Event A is strong evidence of an embolus passing through a blood flow region near the selected sample volume.」(第10欄第24-25行)と記載されるように、血管内を通過する血栓を監視していることが記載されているものと認められる。

### (請求項2, 6について)

血栓治療装置を携帯可能とすることは、周知技術である(例として引用文献8, 9参照)。

必要に応じて血栓検出装置も単に携帯可能とすることは当業者なら適宜なし得る。

### (請求項3, 4について)

血栓の検出結果に基づいて、血栓溶解剤を注入することは、引用文献1に記載されるように公知であり、引用文献2, 7に記載されるような血栓の監視装置において、上記公知技術を適用することは当業者なら容易に想到し得る。

また、超音波を送波して血栓を溶解させることは周知技術であるので(一例として引用文献4参照)、血栓溶解剤を注入して血栓を溶解させる構成に換えて、超音波を送波して血栓を溶解させるようにすることは、当業者なら容易に想到し得る。

(請求項6, 7について)

引用文献5には、血栓に治療用超音波を照射し、超音波ドブラから血流状態を観察し、血流の状態に応じて血栓溶解剤を注入する発明が記載されている（特に段落【0039】参照）。

また、血流を観察する技術として生体光計測手段を用いることは、周知の技術手段であって、引用文献5に記載される発明において、超音波ドブラに換えて生体光計測手段を用いて、血流を観察する構成とすることは当業者なら容易に想到し得る。

そして、超音波により血管内を通過する血栓を検出することは、引用文献2に記載されるように公知であるので、引用文献5に記載される発明を、血管内を通過する血栓に対して用いることは容易に想到し得る。

(請求項7について)

引用文献6に記載される発明は、血栓溶解剤注入を最小限にする旨記載されており、薬剤注入量及び超音波照射時間を監視することは、それぞれ公知技術であるので（引用文献3, 8参照）、引用文献8に記載される発明においても、血栓溶解剤注入量及び超音波照射時間を監視し、調整する制御手段を備えることは当業者なら容易に想到し得る。

#### 引用文献等一覧

1. 特開平03-146071号公報
2. 国際公開第00/27288号
3. 特開平09-282287号公報
4. 特開2001-327495号公報
5. 特開平05-220152号公報
6. 特開2000-210300号公報
7. 国際公開第00/57793号
8. 特開平03-049754号公報
9. 特開平09-276352号公報

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#### 先行技術文献調査結果の記録

・調査した分野     IPC   A61B8/00-8/14

この拒絶理由通知の内容に関するお問い合わせ、または面接のご希望がございましたら下記までご連絡下さい。

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